

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16. (Cancelled)

17. (currently amended) A kit for detecting the presence of tumor cells in a mammal ~~an animal~~, comprising:

a receptacle adapted to receive a sample; and

a means for detecting expression of VEGF-B₁₈₆ in said sample,

whereby detection of expression of VEGF-B₁₈₆ is indicative of the presence of tumor cells.

18. (currently amended) A kit for detecting the presence of tumor cells in a mammal ~~an animal~~, comprising:

a receptacle adapted to receive a sample;

a means for determining an expression level of VEGF-B₁₈₆ in said sample; and

a means for comparing said expression level of VEGF-B₁₈₆ with a control level of VEGF-B₁₈₆ in an animal absent tumors,

wherein determination of an increased expression level of VEGF-B₁₈₆ over the control expression level is indicative of the presence of tumor cells.

19. (currently amended) A method for screening for anti-tumor agents, comprising:

applying a candidate test agent to a tumor cell; and

~~detecting, by any suitable means, a decrease in the level of~~
expression of VEGF-B₁₈₆ in the tumor cell,

wherein a decrease in the expression level indicates that the
candidate agent is an anti-tumor agent.

20. (new) A kit according to Claim 17, further comprising a means for detecting expression level of VEGF-B₁₆₇.

21. (new) A kit according to Claim 17, wherein the means for detecting VEGF-B₁₈₆ comprises suitable agents for detecting VEGF-B₁₈₆ at nucleic acid level.

22. (new) A kit according to Claim 21, wherein the means for detecting VEGF-B₁₈₆ comprises suitable agents for detecting VEGF-B₁₈₆ at RNA level.

23. (new) A kit according to Claim 17, wherein the means for detecting VEGF-B₁₈₆ comprises suitable agents for detecting VEGF-B₁₈₆ at protein level.

24. (new) A kit according to Claim 23, wherein the means for detecting VEGF-B₁₈₆ at protein level comprises a VEGF-B₁₈₆-specific antibody.

25. (new) A kit according to Claim 24, wherein said VEGF-B₁₈₆-specific antibody is a monoclonal antibody.

26. (new) A kit according to Claim 24, wherein the antibody is labeled covalently or noncovalently with a detectable label.

27. (new) A kit according to Claim 26, wherein the detectable label is selected from the group consisting of supermagnetic agent, a paramagnetic agent, an electron dense agent, an ecogenic agent, and a radioactive agent.

28. (new) A kit according to Claim 26, wherein the detectable label is selected from the group consisting of ^{125}I , ^{32}P , an enzymatic label, and a fluorimetric labels.

29. (new) A kit according to Claim 28, wherein the enzymetic label is horseradish peroxidase.

30. (new) A kit according to Claim 28, wherein the fluorimetric label is fluorescein-5-isothiocyanate (FITC).

31. (new) A kit according to Claim 20, wherein the means for detecting VEGF-B₁₆₇ comprises suitable agents for detecting VEGF-B₁₆₇ at nucleic acid level.

32. (new) A kit according to Claim 31, wherein the means for detecting VEGF-B₁₆₇ comprises suitable agents for detecting VEGF-B₁₆₇ at RNA level.

33. (new) A kit according to Claim 20, wherein the means for detecting VEGF-B₁₆₇ comprises suitable agents for detecting VEGF-B₁₆₇ at protein level.

34. (new) A kit according to Claim 33, wherein the means for detecting VEGF-B₁₆₇ at protein level comprises a VEGF-B₁₆₇-specific antibody.

35. (new) A kit according to Claim 34, wherein said VEGF-B₁₆₇-specific antibody is a monoclonal antibody.

36. (new) A kit according to Claim 34, wherein the antibody is labeled covalently or noncovalently with a detectable label.

37. (new) A kit according to Claim 36, wherein the detectable label is selected from the group consisting of supermagnetic agent, a paramagnetic agent, an electron dense agent, an ecogenic agent, and a radioactive agent.

38. (new) A kit according to Claim 36, wherein the detectable label is selected from the group consisting of ^{125}I , ^{32}P , an enzymatic label, and a fluorimetric labels.

39. (new) A kit according to Claim 38, wherein the enzymetic label is horseradish peroxidase.

40. (new) A kit according to Claim 38, wherein the fluorimetric label is fluorescein-5-isothiocyanate (FITC).

41. (new) An isoform-specific antibody that reacts with VEGF-B₁₆₇ but not VEGF-B₁₈₆.

42. (new) The isoform-specific antibody of Claim 41, which is a monoclonal antibody.

43. (new) The isoform-specific antibody of Claim 41, which is a humanized antibody.

44. (new) The isoform-specific antibody of Claim 41, which is a chimeric antibody.

45. (new) The isoform-specific antibody of Claim 41, which is labeled covalently or noncovalently with a detectable label.

46. (new) The isoform-specific antibody of Claim 45, wherein the detectable label is selected from the group consisting of supermagnetic agent, a paramagnetic agent, an electron dense agent, an ecogenic agent, and a radioactive agent.

47. (new) The isoform-specific antibody of Claim 45, wherein the detectable label is selected from the group consisting of ^{125}I , ^{32}P , an enzymatic label, and a fluorimetric labels.

48. (new) The isoform-specific antibody of Claim 47, wherein the enzymatic label is horseradish peroxidase.

49. (new) The isoform-specific antibody of Claim 47, wherein the fluorimetric label is fluorescein-5-isothiocyanate (FITC).

50. (new) A pharmaceutical composition comprising an antibody of Claim 41, and a pharmaceutically acceptable excipient.

51. (new) An isoform-specific antibody that reacts with VEGF-B₁₈₆ but not VEGF-B₁₆₇.

52. (new) The isoform-specific antibody of Claim 51, which is a monoclonal antibody.

53. (new) The isoform-specific antibody of Claim 41, which is a humanized antibody.

54. (new) The isoform-specific antibody of Claim 41, which is a chimeric antibody.

55. (new) The isoform-specific antibody of Claim 52, which is labeled covalently or noncovalently with a detectable label.

56. (new) The isoform-specific antibody of Claim 55, wherein the detectable label is selected from the group consisting of supermagnetic agent, a paramagnetic agent, an electron dense agent, an ecogenic agent, and a radioactive agent.

57. (new) The isoform-specific antibody of Claim 55, wherein the detectable label is selected from the group consisting of ¹²⁵I, ³²P, an enzymatic label, and a fluorimetric labels.

58. (new) The isoform-specific antibody of Claim 57, wherein the enzymetic label is horseradish peroxidase.

59. (new) The isoform-specific antibody of Claim 57, wherein the fluorimetric label is fluorescein-5-isothiocyanate (FITC).

60. (new) A pharmaceutical composition comprising an antibody of Claim 51, and a pharmaceutically acceptable excipient.

61. (new) A method for inhibiting VEGF-B₁₆₇ mediated angiogenesis in a mammal in need thereof, comprising administering to said mammal an effective amount of a VEGF-B₁₆₇ antagonist.

62. (new) A method according to Claim 61, wherein the VEGF-B₁₆₇ antagonist is a VEGF-B₁₆₇-specific antibody.

63. (new) A method according to Claim 61, wherein the VEGF-B₁₆₇ antagonist comprises a small molecule antagonist.

64. (new) A method according to Claim 61, wherein the VEGF-B₁₆₇ antagonist comprises a nucleic acid molecule that is anti-sense to a polynucleotide sequence encoding VEGF-B₁₆₇.

65. (new) A method according to Claim 61, wherein the method is for inhibiting the proliferation of angiogenesis-dependent tumor, or for inhibiting new blood vessel formation in diabetic retinopathy, psoriasis, arthropathies or a vascular tumor.

66. (new) A method according to Claim 61, wherein the vascular tumor is haemangioma.

67. (new) A method for inhibiting VEGF-B₁₈₆ mediated angiogenesis in a mammal in need thereof, comprising administering to said mammal an effective amount of a VEGF-B₁₈₆ antagonist.

68. (new) A method according to Claim 67, wherein the VEGF-B₁₆₇ antagonist comprises a VEGF-B₁₈₆-specific antibody.

69. (new) A method according to Claim 67, wherein the VEGF-B₁₆₇ antagonist comprises a small molecule antagonist.

70. (new) A method according to Claim 67, wherein the VEGF-B₁₆₇ antagonist comprises a nucleic acid that is anti-sense molecule to a polynucleotide sequence encoding VEGF-B₁₈₆.

71. (new) A method according to Claim 67, wherein the method is for inhibiting the proliferation of angiogenesis-dependent tumor, or for inhibiting new blood vessel formation in diabetic retinopathy, psoriasis, arthropathies or a vascular tumor.

72. (new) A method according to Claim 67, wherein the vascular tumor is haemangioma.

73. (new) A method for inhibiting tumor cell formation or tumor cell growth, the method comprising administering to a patient in need thereof an antagonist to VEGF-B₁₈₆.

74. (new) A method according to Claim 73, wherein the antagonist comprises an isoform-specific antibody to VEGF-B₁₈₆.

75. (new) A method according to Claim 73, wherein the VEGF-B₁₈₆ antagonist comprises a small molecule antagonist.

76. (new) A method according to Claim 73, wherein the VEGF-B₁₈₆ antagonist comprises a nucleic acid molecule that is anti-sense to a polynucleotide sequence encoding VEGF-B₁₈₆.

77. (new) A method according to Claim 73, wherein the tumor cell is selected from the group consisting of fibrosarcoma, melanoma, Lewis lung carcinoma, glioma, and pheochromocytoma.

78. (new) A method according to Claim 73, wherein the tumor cell is benign or malignant.

79. (new) A method according to Claim 73, wherein the patient is human.